

# installation guide

## HP StorageWorks JREserver

Part Number: AA-RVHQB-TE

Product Version: 1.1  
Second Edition (December 2004)

This guide contains procedures for installing, removing, and upgrading HP StorageWorks JREserver, and for configuring and troubleshooting Java™ Runtime Environments for specific HP StorageWorks applications.

View this document online at <http://h18006.www1.hp.com/products/storage/software/conaccesseva/index.html>.



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HP StorageWorks JREserver installation guide

Second Edition (December 2004)

## About JREserver and this guide

HP StorageWorks JREserver provides the Java Runtime Environments (JREs) that are required for client access to HP StorageWorks applications such as Command View EVA and Replication Solutions Manager. It is a convenient and reliable alternative to downloading the required JREs from the manufacturer's web site.

This guide explains how to install, configure, update, and remove HP JREserver. It is intended for storage administrators who use HP Command View EVA and HP Replication Solutions Manager.

HP supports these JREs and any patches distributed by the JRE developer to address issues such as security vulnerabilities. HP recommends that customers contact the JRE manufacturer to determine if patches are required.

For the currently supported JREs and browsers, refer to *HP StorageWorks EVA replication compatibility reference* available from the HP Continuous Access EVA web site:  
<http://h18006.www1.hp.com/products/storage/software/conaccesseva/index.html>.

## Installing HP JREserver

This installation requires either the HP StorageWorks JREserver CD or the Web download file from the HP StorageWorks application product page. The space required for HP JREserver 1.1 is 331.8MB.

HP recommends installing HP JREserver immediately before or after installing the StorageWorks application.

## Upgrading JREserver

It is possible to have JREserver 1.0 on one machine and JREserver 1.1 on another machine depending on space availability. If space is limited, you can install the new HP JREserver on another computer. Remove previous versions when you no longer need to deploy their JREs.

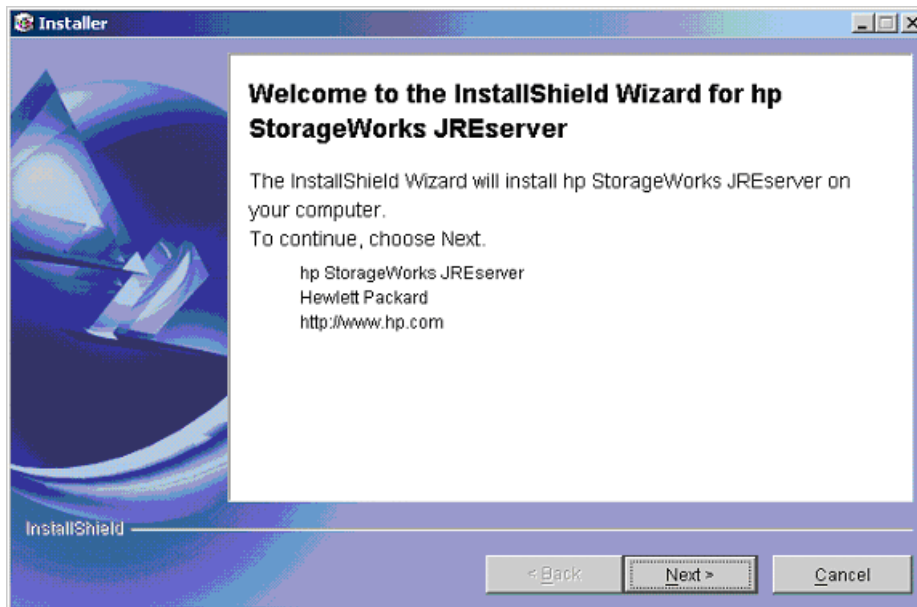
You can install a new HP JREserver without removing a previous version. The installation adds to, rather than replaces, previously installed JREs.

Perform [Step 2](#) through [Step 7](#) in [Installation Procedure](#) to upgrade the JREserver.

## Installation procedure

Complete the following procedure to install HP JREserver on the same server as the HP StorageWorks application:

1. Insert the HP JREserver CD into the CD-ROM disk drive or download the files from the Web.
2. Navigate to and double-click the **setup.exe** file. The HP JREserver welcome page appears.



**Figure 1.1. Installation introduction**

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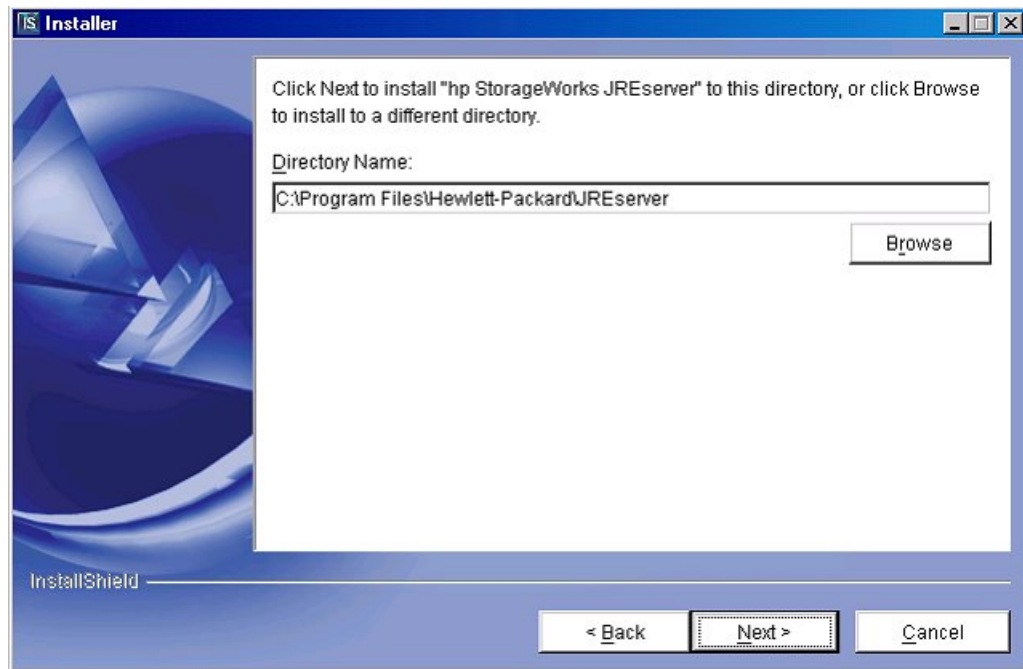
### Note

Click **Cancel** at any time to exit the installation.

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3. Click **Next**.

The default installation directory is displayed.



**Figure 1.2. User selectable directory**

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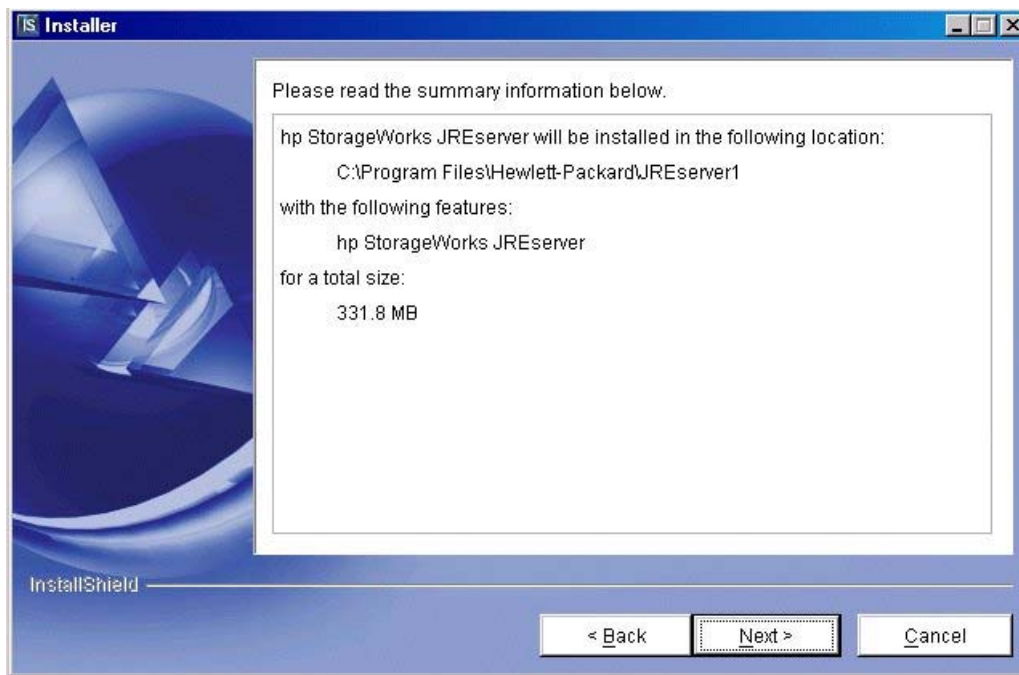
**Note**

If JREserver 1.0 is already installed, the user selectable directory screen will not display. The JREserver 1.1 will just install the JREs in the same directory: C:\program file\hewlett-packard\jreserver.

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4. Choose the directory where HP JREserver will be installed and click **Next**.

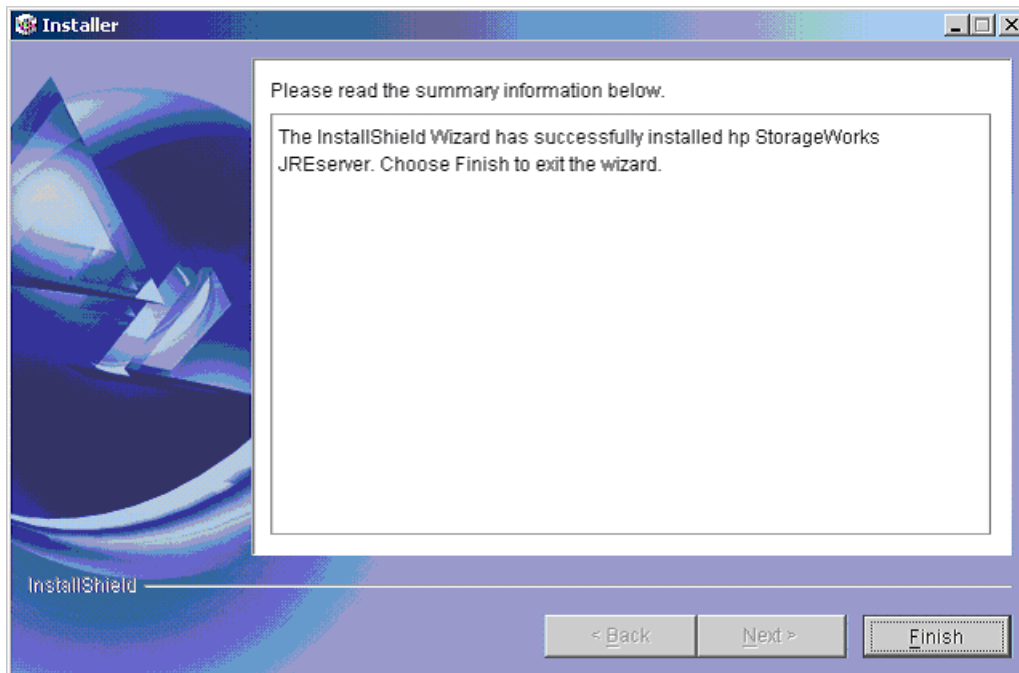
A summary page appears.



**Figure 1.3. Installation summary**

5. Review the summary and click **Next**.
6. Click **Next**.

An installation window briefly appears as HP JREserver installs.



**Figure 1.4. Installation complete**

7. Click **Finish** to complete the installation.

The JREs reside within folders for specific operating systems. For example, JREs for Windows operating systems reside in a folder labeled Windows.

## Installing a JRE on a client

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### Note

Before installing the JRE, close all open browsers to ensure that the JRE installs properly. In some cases, the JRE installation requires rebooting the client before the JRE functions properly.

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After installing JREserver, complete the following procedure to install a JRE on the browsing computer:

1. Set up the JREserver folder as a shared folder.
2. On the client, map to the drive where the JREserver folder resides.
3. Copy the JRE that corresponds to the client operating system onto the client.
4. Following standard operating system procedures, install the JRE on the client machine.

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### Note

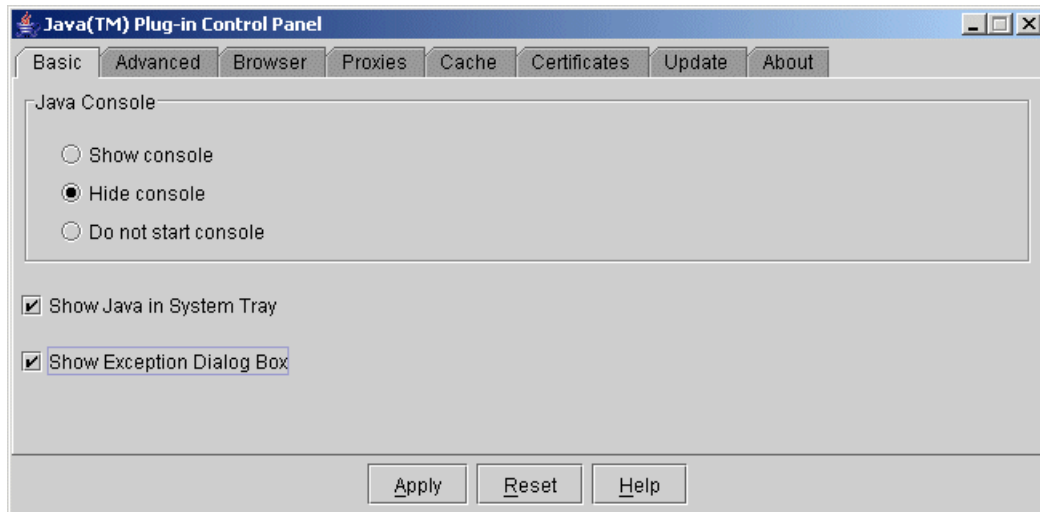
HP recommends copying the JRE packages to an FTP server for Linux and UNIX clients.

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## Configuring JREs

This topic explains how to configure JREs for use with HP StorageWorks applications. JREs are configured through the Java Plug-in Control Panel (see [Figure 1.5](#)).



**Figure 1.5. Java plug-in control panel (Windows example)**

To access the JRE control panel:

- From Windows:  
Select **Start > Settings > Control Panel** and then double-click **Java Plug-in**.
- From HP-UX, Linux, and Solaris:
  1. Open a browser.
  2. Select **Open** from the File menu.
  3. Navigate to the JRE:
    - HP-UX and Solaris: typically in `/usr/j2se/jre`
    - Linux: `/usr/java/j2re1.4.2_02/bin/ControlPanel`
  4. Double-click **ControlPanel.html**.

### Java Plug-in Control Panel tabs

For StorageWorks applications, key tabs are:

- Advanced
- Cache
- Update (Windows only)

This panel contains tabs OS dependent:

- Microsoft Windows® provides eight tabs: Basic, Advanced, Browser, Proxies, Cache, Certificates, Update, and About.
- HP-UX, Linux, and Solaris provide six tabs: Basic, Advanced, Proxies, Cache, Certificates, and About.

## Specify a JRE

Use the Advanced tab to specify the desired JRE.. If multiple JREs are currently installed or different JREs have been installed and removed, specifying the desired JRE can resolve JRE conflicts and collisions.

## Disable caching

JRE cache is “sticky cache,” which means that the disk cache is created and controlled by the Java plug-in and the browser cannot overwrite it. Because caching prevents the applet from downloading fresh information each time a page is displayed, caching can cause the application to display inaccurate data.

To clear and disable JRE caching, click the **Cache** tab and complete the following procedure:

1. If necessary, select **Enable Caching**.
2. Click **Clear**.
3. Click **OK** on the confirmation message.
4. Clear **Enable Cache**.
5. Click **OK**.

## Disable automatic updates (Windows only)

By default the Update tab is set to Check for Updates Automatically. In a properly configured and functioning system, an automatic update can be an unnecessary intrusion. HP recommends disabling automatic updates by clearing **Check for Updates Automatically**.

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### Note

For additional Java plug-in configuration information, visit the web site: [http://java.sun.com/j2se/1.4/pdf/developer\\_guide.pdf](http://java.sun.com/j2se/1.4/pdf/developer_guide.pdf).

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## Removing HP JREserver



### Caution

Removing the JREserver removes all JREs from the server regardless of which version installed the JRE. This removal will not remove any JREs installed on client machines.

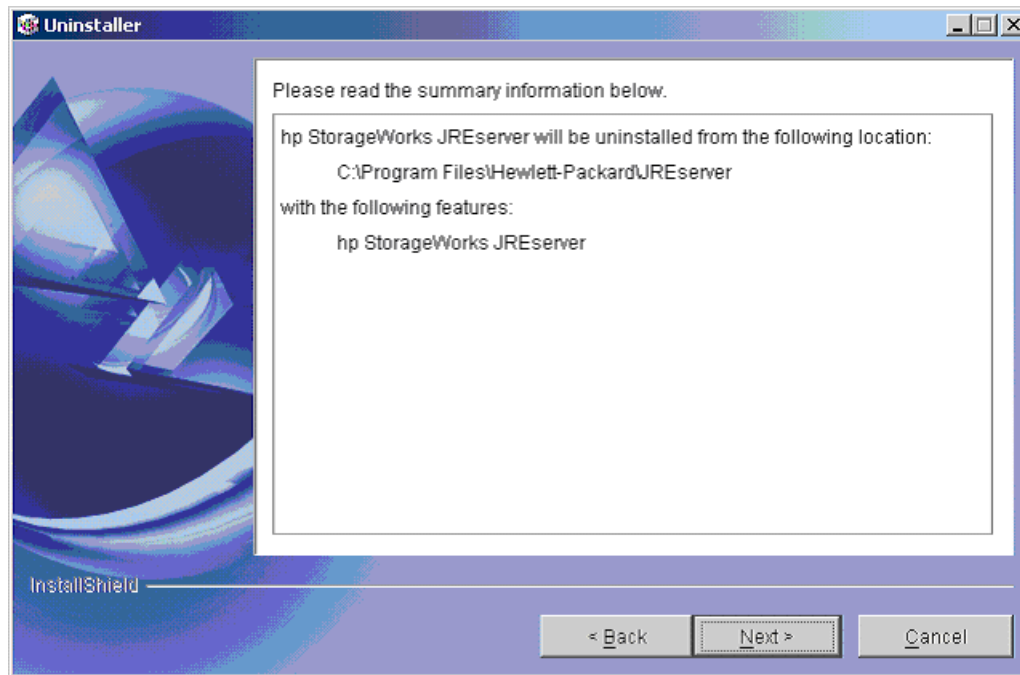
Complete the following procedure to remove HP JREserver:

1. Select **Start > Settings > Control Panel**.
2. Double-click **Add/Remove Programs**.
3. Select **hp StorageWorks JREserver** from the program list.
4. Click **Change/Remove**.



**Figure 1.6. Removal introduction**

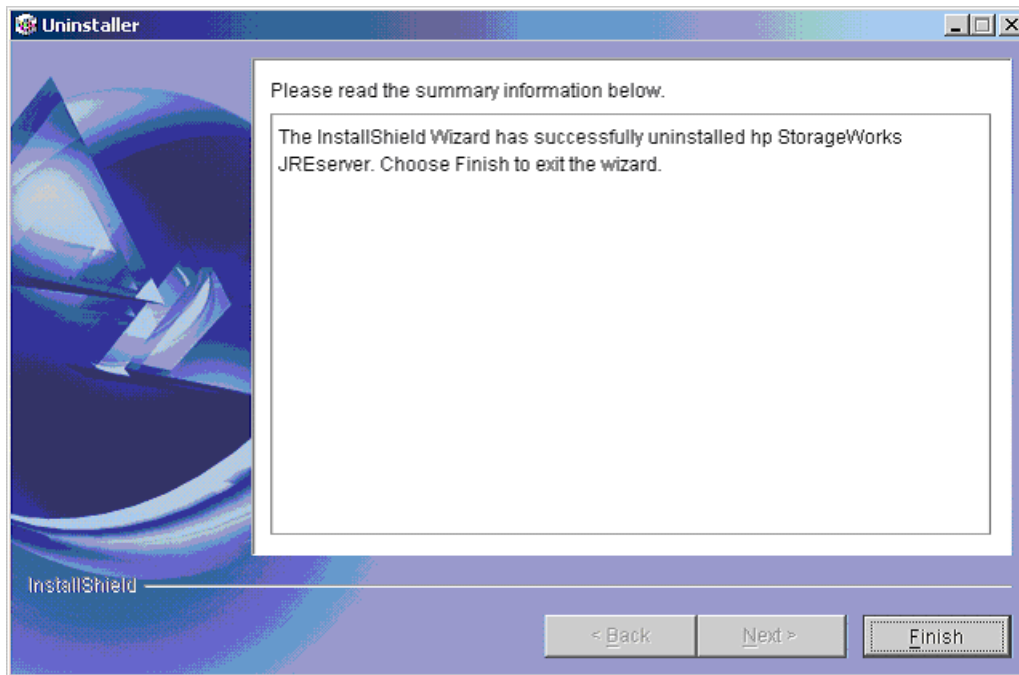
5. Click **Next**.



**Figure 1.7. Removal summary**

6. Review the summary before continuing.
7. Click **Uninstall**.

A window briefly appears as HP JREserver is removed. [Figure 1.8](#) appears following a successful removal.



**Figure 1.8. Removal complete**

8. Click **Finish** to complete the removal.

## Troubleshooting HP StorageWorks application access

This section describes problems related to accessing the application. Topics include:

- [Experiencing Java error messages such as "JRE Collision"](#)
- [Web browser does not display the complete interface during startup](#)
- [General problems](#)
- [Inability to browse to the server](#)
- [Windows 2000 and Windows Server 2003 access problems](#)

### Experiencing Java error messages such as “JRE Collision”

#### Description

A supported JRE was installed successfully, but a JRE conflict or collision might display an error message.

#### Resolution

See *HP StorageWorks EVA replication compatibility reference* to verify the JRE configuration.

#### Description

A JRE conflict displays a message and you are experiencing a loss of functionality.

#### Resolution

If you are using Terminal Services on a Storage Management Appliance (SMA), ensure you are not using the browser to access the application.

### Web browser does not display the complete interface during startup

#### Description

Following the initial startup and display, the applet is initialized and the message `Loading Java Applet...` appears in the bottom left corner of the browser window. At the start of the download, a Secure Socket Layer (SSL) window requests your approval to accept the security certificate. This security certificate allows you to verify the authenticity of the visiting site and to communicate with the site securely. The download cannot continue without a response. Occasionally, this window becomes hidden behind the browser window, giving the impression that a problem exists with displaying the interface.

#### Resolution

Perform one of the following:

- Hold down the `ALT` key and press `TAB` as necessary to display the SSL window. Look for the steaming cup of coffee application icon and titled “Java Plug In Security Warning.” With this window displayed, answer the question.
- Minimize all windows to view the security window and answer the question.

## General problems

### Description

Problems with server account login page and Java errors.

Types of problems include:

- The area for entering the Username and Password is missing from the server account login page, preventing login to the server.
- Java, Java Applet, JavaScript, or ActiveX errors are displayed, preventing display of the interface.
- Only the interface top header is displayed, and no information displays in the Web pages.
- Error message:
  - The Java2 Plug-In necessary to run this applet has not been installed
- Error message:
  - The Java Runtime Environment cannot be loaded

## Resolution

Check the following:

- Ensure that a supported browser and JRE are being used.  
If necessary, download and install the minimum supported JRE from HP JREserver.
- Ensure that the Java Plug-in Control Panel is set up properly.
- If installing a new browser, an updated browser version, new JRE, or an updated JRE version, always:
  1. Close all open browser windows.
  2. Allow the browser or JRE installation to complete.
  3. Open a new browser session and browse to the server.  
If problems persist (such as lack of a display in the lower portion of the interface), complete the following:
    - a. Clear the browser and JRE cache as described in [Table 1.1](#) and refresh the browser to see if the problem clears.
    - b. Verify that the browser is set up properly.
    - c. Reboot the client and browse to the server again.

**Table 1.1. Clearing the browser and JRE cache**

To clear cache for...	Use this procedure...
Internet Explorer	<ol style="list-style-type: none"> <li>1. Select <b>Internet Options</b> from the Tools menu.</li> <li>2. Click <b>Delete Files</b> under Temporary Internet Files on the General tab. Clicking Delete all offline content is not necessary.</li> <li>4. Click <b>Settings</b>.</li> <li>5. Select <b>Every visit to the page</b>.</li> <li>6. Click <b>OK</b>.</li> <li>7. Click <b>OK</b>.</li> </ol>
Mozilla	<ol style="list-style-type: none"> <li>1. Select <b>Preferences</b> from the Edit menu.</li> <li>2. In the Navigation pane, select <b>Advanced &gt; Cache</b>.</li> <li>3. Set cache to <b>0 MB</b>.</li> <li>4. Click <b>Clear Cache</b>.</li> <li>5. Click <b>OK</b>.</li> <li>6. Click <b>Clear Disk Cache</b>.</li> <li>7. Click <b>OK</b>.</li> </ol>
JRE plug-in	<ol style="list-style-type: none"> <li>1. Open the Java Plug-in Control Panel.</li> <li>2. Click the <b>Cache</b> tab.</li> <li>3. If necessary, select <b>Enable Caching</b>.</li> <li>4. Click <b>Clear</b> or <b>Clear JAR Cache</b>.</li> <li>5. Clear <b>Enable Caching</b>.</li> <li>6. Click <b>Apply</b>.</li> <li>7. Close the Java Plug-in Control Panel.</li> </ol>



## Inability to browse to the server

### Description

Inability to browse to the server account login page.

The problem might be that the Domain Name Server (DNS) is not recognizing the server.

### Resolution

To correct this problem:

1. Insert an “A” record (host record) and a pointer record (*PTR record* or a *reverse lookup record*) on the DNS server for the server.
2. For Dynamic Host Configuration Protocol (DHCP) environments, set a permanent lease and reservation for the server.
3. Ensure that the DNS is configured for DHCP Auto Registration.

### Alternate solution

An alternative solution is to modify the Hosts file on each browsing computer and the server.

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#### Note

The server and host agent computers must share information to communicate with each other.

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1. Locate the Hosts file by using:
  - Windows: %systemroot%\System32\Drivers\Etc
  - HP-UX and Solaris: /etc
  - Linux: /etc/host
2. Using a text editor, open the Hosts file and add a line to the end of the file that reflects the domain name format.

For example:

- 11.22.33.44 MyComputer.roadrunner.acme.net
- 11.22.33.44 MyComputer

3. Save the file and exit the editor.

## Windows 2000 and Windows Server 2003 access problems

### Problem

Cannot access the interface when using high-security Internet Explorer browsers.

### Resolution

To correct this problem:

1. Remove all existing JRE or Java Virtual Machine installations that are listed in the Add/Remove Programs window.

2. If Netscape has been previously installed, remove the Netscape version.

Netscape automatically installs a JRE that can interfere with Internet Explorer on Windows 2000 and Windows Server 2003 systems.

3. Because removing Netscape does not remove the JRE, manually delete JRE subdirectories under the Java or JavaSoft directories:

- C:\Program Files\java
- C:\Program Files\javasoft

4. Exit Internet Explorer and close all browser windows.

5. Install a supported JRE.

See [Installation Procedure](#).

6. Reopen Internet Explorer and select **Internet Options** from the Tools menu.

7. On the Privacy tab, ensure that the slider is set no higher than Medium-High.

If the slider is missing, restore the slider by clicking **Default Level**. A minimum level of cookie acceptance is required by the server.

8. On the Security tab, ensure that the slider for the Internet security for this zone is set no higher than Medium.

If the slider is missing, restore the slider by clicking **Default Level**.